

# Brian J Meenan

## List of Publications by Year in descending order

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98  
papers

2,649  
citations

159585  
30  
h-index

214800  
47  
g-index

101  
all docs

101  
docs citations

101  
times ranked

4132  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polyethylene glycol functionalized gold nanoparticles: the influence of capping density on stability in various media. <i>Gold Bulletin</i> , 2011, 44, 99-105.	2.4	301
2	Effects of DBD plasma operating parameters on the polymer surface modification. <i>Surface and Coatings Technology</i> , 2004, 185, 311-320.	4.8	143
3	Strontium-substituted hydroxyapatite coatings deposited via a co-deposition sputter technique. <i>Materials Science and Engineering C</i> , 2015, 46, 290-300.	7.3	139
4	Biological responses to hydroxyapatite surfaces deposited via a co-incident microblasting technique. <i>Biomaterials</i> , 2010, 31, 515-522.	11.4	113
5	X-ray-induced beam damage observed during x-ray photoelectron spectroscopy (XPS) studies of palladium electrode ink materials. <i>Surface and Interface Analysis</i> , 1992, 18, 187-198.	1.8	80
6	Protein adhesion and cell response on atmospheric pressure dielectric barrier discharge-modified polymer surfaces. <i>Acta Biomaterialia</i> , 2010, 6, 2609-2620.	8.3	61
7	Raman spectroscopic monitoring of the osteogenic differentiation of human mesenchymal stem cells. <i>Analyst, The</i> , 2011, 136, 2471.	3.5	61
8	The deposition of strontium and zinc Co-substituted hydroxyapatite coatings. <i>Journal of Materials Science: Materials in Medicine</i> , 2017, 28, 51.	3.6	61
9	Influence of target surface degradation on the properties of r.f. magnetron-sputtered calcium phosphate coatings. <i>Surface and Interface Analysis</i> , 2003, 35, 188-198.	1.8	59
10	A non-homogeneous discrete time Markov model for admission scheduling and resource planning in a cost or capacity constrained healthcare system. <i>Health Care Management Science</i> , 2010, 13, 155-169.	2.6	59
11	Barriers to hospital-based clinical adoption of point-of-care testing (POCT): A systematic narrative review. <i>Critical Reviews in Clinical Laboratory Sciences</i> , 2016, 53, 1-12.	6.1	49
12	Innovation in the medical device sector: an open business model approach for high-tech small firms. <i>Technology Analysis and Strategic Management</i> , 2011, 23, 807-824.	3.5	42
13	Surface modification of poly( $\epsilon$ -caprolactone) using a dielectric barrier discharge in atmospheric pressure glow discharge mode. <i>Acta Biomaterialia</i> , 2009, 5, 2025-2032.	8.3	41
14	Quality and continuous improvement in medical device manufacturing. <i>TQM Journal</i> , 2008, 20, 541-555.	3.3	40
15	Assessment of an osteoblast-like cell line as a model for human primary osteoblasts using Raman spectroscopy. <i>Analyst, The</i> , 2012, 137, 1559.	3.5	40
16	Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells. <i>Tissue Engineering - Part A</i> , 2015, 21, 2301-2314.	3.1	39
17	Atmospheric Dielectric Barrier Discharge Treatments of Polyethylene, Polypropylene, Polystyrene and Poly(ethylene terephthalate) for Enhanced Adhesion. <i>Journal of Adhesion Science and Technology</i> , 2012, 26, 2325-2337.	2.6	37
18	A comparison of gold nanoparticle surface co-functionalization approaches using Polyethylene Glycol (PEG) and the effect on stability, non-specific protein adsorption and internalization. <i>Materials Science and Engineering C</i> , 2016, 62, 710-718.	7.3	37

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19	Influence of surface topography on osteoblast response to fibronectin coated calcium phosphate thin films. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010, 78, 283-290.	5.0	36
20	Intelligent Patient Management and Resource Planning for Complex, Heterogeneous, and Stochastic Healthcare Systems. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , 2012, 42, 1332-1345.	2.9	36
21	Thermal analysis studies of poly(etheretherketone)/hydroxyapatite biocomposite mixtures. <i>Journal of Materials Science: Materials in Medicine</i> , 2000, 11, 481-489.	3.6	35
22	Uniformity analysis of dielectric barrier discharge (DBD) processed polyethylene terephthalate (PET) surface. <i>Applied Surface Science</i> , 2006, 252, 2297-2310.	6.1	35
23	Statistical analysis of the effect of dielectric barrier discharge (DBD) operating parameters on the surface processing of poly(methylmethacrylate) film. <i>Surface Science</i> , 2005, 575, 273-286.	1.9	34
24	Surface oxidation of a Melinex 800 PET polymer material modified by an atmospheric dielectric barrier discharge studied using X-ray photoelectron spectroscopy and contact angle measurement. <i>Applied Surface Science</i> , 2007, 253, 3865-3871.	6.1	34
25	Glutathione-mediated release of Bodipy&reg; from PEG cofunctionalized gold nanoparticles. <i>International Journal of Nanomedicine</i> , 2012, 7, 4007.	6.7	34
26	The deposition of strontium-substituted hydroxyapatite coatings. <i>Journal of Materials Science: Materials in Medicine</i> , 2015, 26, 65.	3.6	34
27	The Direct 3D Printing of Functional PEEK/Hydroxyapatite Composites via a Fused Filament Fabrication Approach. <i>Polymers</i> , 2021, 13, 545.	4.5	34
28	Chemical Grafting of Poly(ethylene glycol) Methyl Ether Methacrylate onto Polymer Surfaces by Atmospheric Pressure Plasma Processing. <i>Langmuir</i> , 2010, 26, 1894-1903.	3.5	31
29	Inhibition of lens epithelial cell growth via immobilisation of hyaluronic acid on atmospheric pressure plasma modified polystyrene. <i>Soft Matter</i> , 2011, 7, 608-617.	2.7	30
30	Investigating the use of endogenous quinoid moieties on carbon fibre as means of developing micro pH sensors. <i>Materials Science and Engineering C</i> , 2014, 43, 533-537.	7.3	30
31	Phase-Type Survival Trees and Mixed Distribution Survival Trees for Clustering Patients' Hospital Length of Stay. <i>Informatica</i> , 2011, 22, 57-72.	2.7	30
32	CONTROLLING THE SIZE AND SIZE DISTRIBUTION OF GOLD NANOPARTICLES: A DESIGN OF EXPERIMENT STUDY. <i>International Journal of Nanoscience</i> , 2012, 11, 1250023.	0.7	27
33	Self-assembled monolayers of alendronate on Ti6Al4V alloy surfaces enhance osteogenesis in mesenchymal stem cells. <i>Scientific Reports</i> , 2016, 6, 30548.	3.3	27
34	The Role of Enamel Proteins in Protecting Mature Human Enamel Against Acidic Environments: A Double Layer Force Spectroscopy Study. <i>Biointerphases</i> , 2012, 7, 14.	1.6	26
35	The effect of dielectric barrier discharge configuration on the surface modification of aromatic polymers. <i>Journal Physics D: Applied Physics</i> , 2005, 38, 922-929.	2.8	25
36	Dielectric barrier discharge (DBD) processing of PMMA surface: Optimization of operational parameters. <i>Surface and Coatings Technology</i> , 2006, 201, 2341-2350.	4.8	25

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37	Characterisation of calcium phosphate/titanium dioxide hybrid coatings. Journal of Materials Science: Materials in Medicine, 2008, 19, 485-498.	3.6	24
38	Sputter deposited bioceramic coatings: surface characterisation and initial protein adsorption studies using surface-MALDI-MS. Journal of Materials Science: Materials in Medicine, 2011, 22, 71-84.	3.6	24
39	Monitoring cellular behaviour using Raman spectroscopy for tissue engineering and regenerative medicine applications. Journal of Materials Science: Materials in Medicine, 2010, 21, 2317-2324.	3.6	23
40	Effect of Air Plasma Processing on the Adsorption Behaviour of Bovine Serum Albumin on Spin-Coated PMMA Surfaces. Journal of Bionic Engineering, 2008, 5, 204-214.	5.0	22
41	Calcium phosphate thin films enhance the response of human mesenchymal stem cells to nanostructured titanium surfaces. Journal of Tissue Engineering, 2014, 5, 204173141453751.	5.5	22
42	Intercomparison of algorithms for background correction in XPS. Surface and Interface Analysis, 1995, 23, 484-494.	1.8	21
43	Raman spectroscopy of primary bovine aortic endothelial cells: a comparison of single cell and cell cluster analysis. Journal of Materials Science: Materials in Medicine, 2011, 22, 1923-1930.	3.6	21
44	Atmospheric pressure plasma induced grafting of poly(ethylene glycol) onto silicone elastomers for controlling biological response. Journal of Colloid and Interface Science, 2012, 375, 193-202.	9.4	21
45	Corona Discharge-Induced Functional Surfaces of Polycarbonate and Cyclic Olefins Substrates. Surface and Coatings Technology, 2019, 362, 185-190.	4.8	21
46	Mesenchymal stem cell response to conformal sputter deposited calcium phosphate thin films on nanostructured titanium surfaces. Journal of Biomedical Materials Research - Part A, 2014, 102, 3585-3597.	4.0	20
47	Enamel proteins mitigate mechanical and structural degradations in mature human enamel during acid attack. Materials Research Express, 2014, 1, 025404.	1.6	20
48	An exploratory study of the effects of the dielectric-barrier-discharge surface pre-treatment on the self-assembly processes of a (3-Aminopropyl) trimethoxysilane on glass substrates. Applied Surface Science, 2007, 253, 6932-6938.	6.1	19
49	Modeling of shear stress experienced by endothelial cells cultured on microstructured polymer substrates in a parallel plate flow chamber. Biotechnology and Bioengineering, 2011, 108, 1148-1158.	3.3	19
50	X-ray photoelectron spectroscopy and infra-red studies of X-ray-induced beam damage of cellulose, ethyl cellulose and ethyl-hydroxyethyl cellulose. Surface and Interface Analysis, 1992, 18, 199-209.	1.8	17
51	Clustering patient length of stay using mixtures of Gaussian models and phase type distributions. , 2009, , .		17
52	Lens epithelial cell response to atmospheric pressure plasma modified poly(methylmethacrylate) surfaces. Journal of Materials Science: Materials in Medicine, 2010, 21, 1703-1712.	3.6	17
53	The Surface Characterisation of Polyetheretherketone (PEEK) Modified via the Direct Sputter Deposition of Calcium Phosphate Thin Films. Coatings, 2020, 10, 1088.	2.6	17
54	Controlling Fluid Diffusion and Release through Mixed-Molecular-Weight Poly(ethylene) Glycol Diacrylate (PEGDA) Hydrogels. Materials, 2019, 12, 3381.	2.9	16

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55	Surgeon opinion on new technologies in orthopaedic surgery. Journal of Medical Engineering and Technology, 2011, 35, 139-148.	1.4	15
56	Patterned cell culture substrates created by hot embossing of tissue culture treated polystyrene. Journal of Materials Science: Materials in Medicine, 2013, 24, 2797-2807.	3.6	14
57	Human Fetal Osteoblast Response on Poly(Methyl Methacrylate)/Polystyrene Demixed Thin Film Blends: Surface Chemistry Vs Topography Effects. ACS Applied Materials & Interfaces, 2016, 8, 14920-14931.	8.0	14
58	Effects of strontium-substitution in sputter deposited calcium phosphate coatings on the rate of corrosion of magnesium alloys. Surface and Coatings Technology, 2021, 421, 127446.	4.8	14
59	The Surface Characterisation of Fused Filament Fabricated (FFF) 3D Printed PEEK/Hydroxyapatite Composites. Polymers, 2021, 13, 3117.	4.5	14
60	Investigation of resin-substrate interactions: An IETS study of phenol- and cresol- formaldehyde model compounds. Surface and Interface Analysis, 1987, 10, 184-193.	1.8	13
61	Osteoblastic differentiation of periodontal ligament stem cells on non-stoichiometric calcium phosphate and titanium surfaces. Journal of Biomedical Materials Research - Part A, 2017, 105, 1692-1702.	4.0	13
62	A survey of success factors in New Product Development in the medical devices industry. , 2008, , .		12
63	The influence of target stoichiometry on early cell adhesion of co-sputtered calcium-phosphate surfaces. Journal of Materials Science: Materials in Medicine, 2013, 24, 2845-2861.	3.6	12
64	Nanoindentation and nano-scratching of hydroxyapatite coatings for resorbable magnesium alloy bone implant applications. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 133, 105306.	3.1	12
65	Solvothermal synthesis of graphene oxide and its composites with poly( $\mu$ -caprolactone). Nanoscale, 2019, 11, 18672-18682.	5.6	11
66	Osteoblast-like cell response to calcium phosphate coating chemistry and morphology on etched silicon surfaces. Journal of Materials Science: Materials in Medicine, 2012, 23, 835-851.	3.6	10
67	Application of the Experience Curve to price trends in medical devices: Implications for product development and marketing strategies. Journal of Medical Marketing, 2008, 8, 241-255.	0.2	9
68	Forecasting hospital bed requirements and cost of care using phase type survival trees. , 2010, , .		9
69	Titania nanotube porosity controls dissolution rate of sputter deposited calcium phosphate (CaP) thin film coatings. RSC Advances, 2013, 3, 11263.	3.6	9
70	Catalytic and physicochemical characterizations of novel oxide-supported copper catalysts. Part 1. Hydrosol-prepared Cu/TiO <sub>2</sub> and effects of prereduction on hydrogenation and oligomerization of acetone. Journal of Materials Chemistry, 1993, 3, 743-750.	6.7	8
71	X-ray photoelectron spectroscopy studies of fired palladium electrode ink materials. Surface and Interface Analysis, 1993, 20, 215-220.	1.8	7
72	Electrochemically Reduced Polycrystalline Tin Oxide Thin Films: Surface Analysis and Electroplated Copper Adhesion. Journal of the Electrochemical Society, 1996, 143, 2048-2052.	2.9	7

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73	Using Markov Models to Find Interesting Patient Pathways. Proceedings of the IEEE Symposium on Computer-Based Medical Systems, 2007, , .	0.0	7
74	User Perspectives of Cardiac Marker Point-of-Care Testing for Hospital-Based Chest Pain Diagnosis. Point of Care, 2008, 7, 47-53.	0.4	7
75	An extended phase type survival tree for patient pathway prognostication. , 2010, , .		7
76	The Profile of Payload Release from Gold Nanoparticles Modified with a BODIPY®/PEG Mixed Monolayer. Journal of Nano Research, 2013, 25, 16-30.	0.8	7
77	Barriers Affecting the Adoption of Point-of-Care Technologies Used in Chest Pain Diagnosis Within the UK National Health Service. Point of Care, 2010, 9, 70-79.	0.4	6
78	THE INFLUENCE OF SUBSTRATE MORPHOLOGY ON THE STRUCTURE AND COMPOSITION OF RF SPUTTER DEPOSITED CALCIUM PHOSPHATE THIN FILMS. , 1999, , .		6
79	Surface characterization of highly oriented pyrolytic graphite modified by oxygen radio-frequency plasmas. Journal of Materials Science Letters, 1993, 12, 201-204.	0.5	5
80	Optimal Control of Patient Admissions to Satisfy Resource Restrictions. , 2008, , .		5
81	Barriers Affecting the Adoption of Point-of-Care Technologies Used in Chest Pain Diagnosis Within the UK National Health Service. Point of Care, 2010, 9, 80-90.	0.4	5
82	Do we need stochastic models for healthcare? The case of ICATS?. Journal of Simulation, 2014, 8, 293-303.	1.5	5
83	Investigating the Effects of Fluid Shear Forces on Cellular Responses to Profiled Surfaces in-Vitro: A Computational and Experimental Investigation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5387-90.	0.5	4
84	Effect of nanoscale topography on fibronectin adsorption to sputter deposited calcium phosphate thin films. International Journal of Nano and Biomaterials, 2008, 1, 280.	0.1	4
85	Protein, cell and bacterial response to atmospheric pressure plasma grafted hyaluronic acid on poly(methylmethacrylate). Journal of Materials Science: Materials in Medicine, 2015, 26, 260.	3.6	4
86	A framework to manage the innovation strategies of new technology based firms. , 2011, , .		3
87	An Extended Mixture Distribution Survival Tree for Patient Pathway Prognostication. Communications in Statistics - Theory and Methods, 2013, 42, 2912-2934.	1.0	3
88	Royal Academy of Medicine in Ireland Section of Bioengineering. Irish Journal of Medical Science, 1999, 168, 208-220.	1.5	2
89	Development of a sensitive whole blood chemiluminescence method for assessing the bioactivity of calcium phosphate powders. Biomaterials, 2002, 23, 2431-2445.	11.4	2
90	Assessment of User Perspectives of Cardiac Point of Care Technologies in Chest Pain Diagnosis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1762-5.	0.5	2

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91	Non-homogeneous Markov Models for Performance Monitoring of Healthcare. , 2007, , .		2
92	Price Trend Analysis and its Implications for the Development of New Medical Technologies. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5156-9.	0.5	1
93	Application of synthetic patient data in the assessment of rapid rule-out protocols using Point-of-Care testing during chest pain diagnosis in a UK emergency department. Journal of Simulation, 2009, 3, 163-170.	1.5	1
94	Entrapment of Autologous von Willebrand Factor on Polystyrene/Poly(methyl methacrylate) Demixed Surfaces. Polymers, 2017, 9, 700.	4.5	1
95	Evaluating Different Selection Criteria for Phase Type Survival Tree Construction. Big Data Research, 2021, 25, 100250.	4.2	1
96	Direct monitoring of single-cell response to biomaterials by Raman spectroscopy. Journal of Materials Science: Materials in Medicine, 2021, 32, 148.	3.6	1
97	Royal academy of medicine in Ireland section of bioengineering. Irish Journal of Medical Science, 1998, 167, 105-117.	1.5	0
98	The 24th European Conference on Biomaterials: Facts & Figures. Journal of Materials Science: Materials in Medicine, 2012, 23, 3-7.	3.6	0